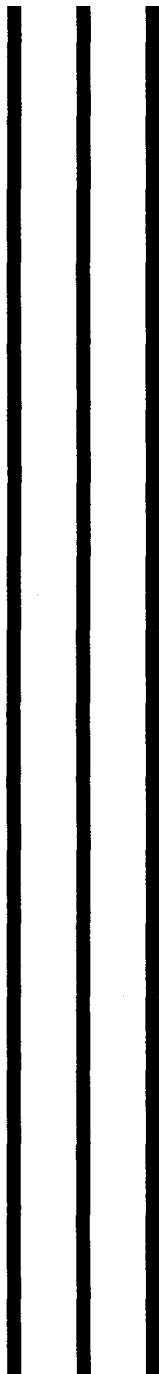




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LOGIC MODEL WORKSHOP

December 5, 2001

Madison, WI
8:30AM – 4 PM

Materials prepared by

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Glossary of Common Terms

Program. An educational program is a series of organized learning activities and resources aimed to help people make improvements in their lives.

Program evaluation. The systematic process of asking critical questions, collecting appropriate information, analyzing, interpreting and using the information in order to improve programs and be accountable for positive, equitable results and resources invested.

Accountability. Responsibility for effective and efficient performance of programs. Measures of accountability focus on (1) benefits accruing from the program as valued by customers and supporters; (2) how resources are invested and the results attained.

Inputs. Resources that go into a program including staff time, materials, money, equipment, facilities, volunteer time.

Outputs. The activities, products and participation that are generated through the investment of resources.

Outcomes. Results or changes that occur from the educational effort. Outcomes answer the question... "So what?" What difference has the program made in peoples' lives? Whose lives? Outcomes may relate to changes in knowledge, awareness, skills, attitudes, opinions, aspirations, motivation, behavior, practice, decision-making, policies, social action, condition, or status. Outcomes may be intended and unintended: positive and negative. Outcomes fall along a continuum from immediate (initial; short-term) to intermediate (medium-term) to final outcomes (long-term), often synonymous with impact.

Impact. The social, economic, civic and/or environmental consequences of the program. Impacts tend to be longer-term and so may be equated with goals. Impacts may be positive, negative and/or neutral: intended or unintended.

Impact indicator. Expression or indication of impact. Evidence that the impact has/is being achieved.

Measure. Either quantitative or qualitative information that expresses the phenomenon under study. In the past, the term measure or measurement carried a quantitative implication of precision and, in the field of education, was synonymous with testing and instrumentation. Today, the term measure is used broadly to include both quantitative and qualitative information.

Qualitative methodology. Methods that examine phenomena in depth and detail without predetermined categories or hypotheses. Emphasis is on understanding the phenomena, as it exists. Often connoted with naturalistic inquiry, inductive, social anthropological worldview. Qualitative methods usually consist of three kinds of data collection: observation, open-ended interviewing, and document review.

Quantitative methodology. Methods that seek the facts or causes of phenomena, which can be expressed numerically and analyzed statistically. Interest is in generalizability. Often connoted with a positivist, deductive, natural science worldview. Quantitative methods consist of standardized, structured data collection including surveys, closed-ended interviews, and tests.

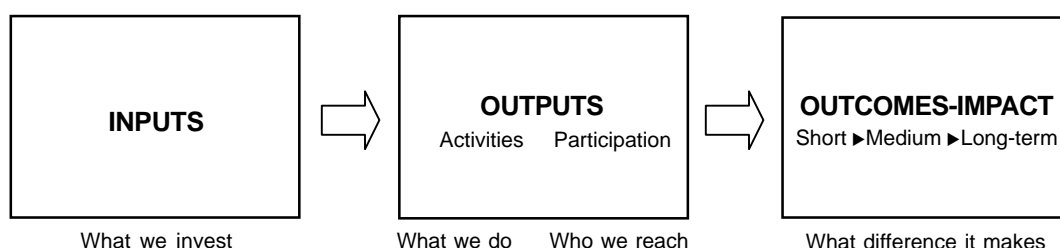
Quantitative data. Data in a numerical format

Qualitative data. Data in a narrative or text format

Baseline. Information about the situation or condition prior to a program or intervention.

Benchmarks. Performance data that are used for comparative purposes.

SUMMARY OF PROGRAM LOGIC MODEL



AGENDA

Logic Model Framework

Madison, December 5, 2001

- 8:30 Welcome, Introductions**
- 8:45 Logic model : Framework**
What it is? Why use it?
Theory of change
Causal connections
Outcomes vs. activities
- 10:00 BREAK**
- 10:15 Logic model: Practice**
Compare logic models
Draw a logic model of your program
Check your logic model
- 12:00 LUNCH**
- 1:00 Logic model: issues and opportunities**
How, when, where do we use this?
- 2:00 Using your logic model in evaluation**
Why use a logic model?
Evaluation questions
What to evaluate – when
- 2:30 BREAK**
- 2:45 Indicators**
Linking an evaluation plan to your logic model
- 4:00 Wrap-up and next steps**

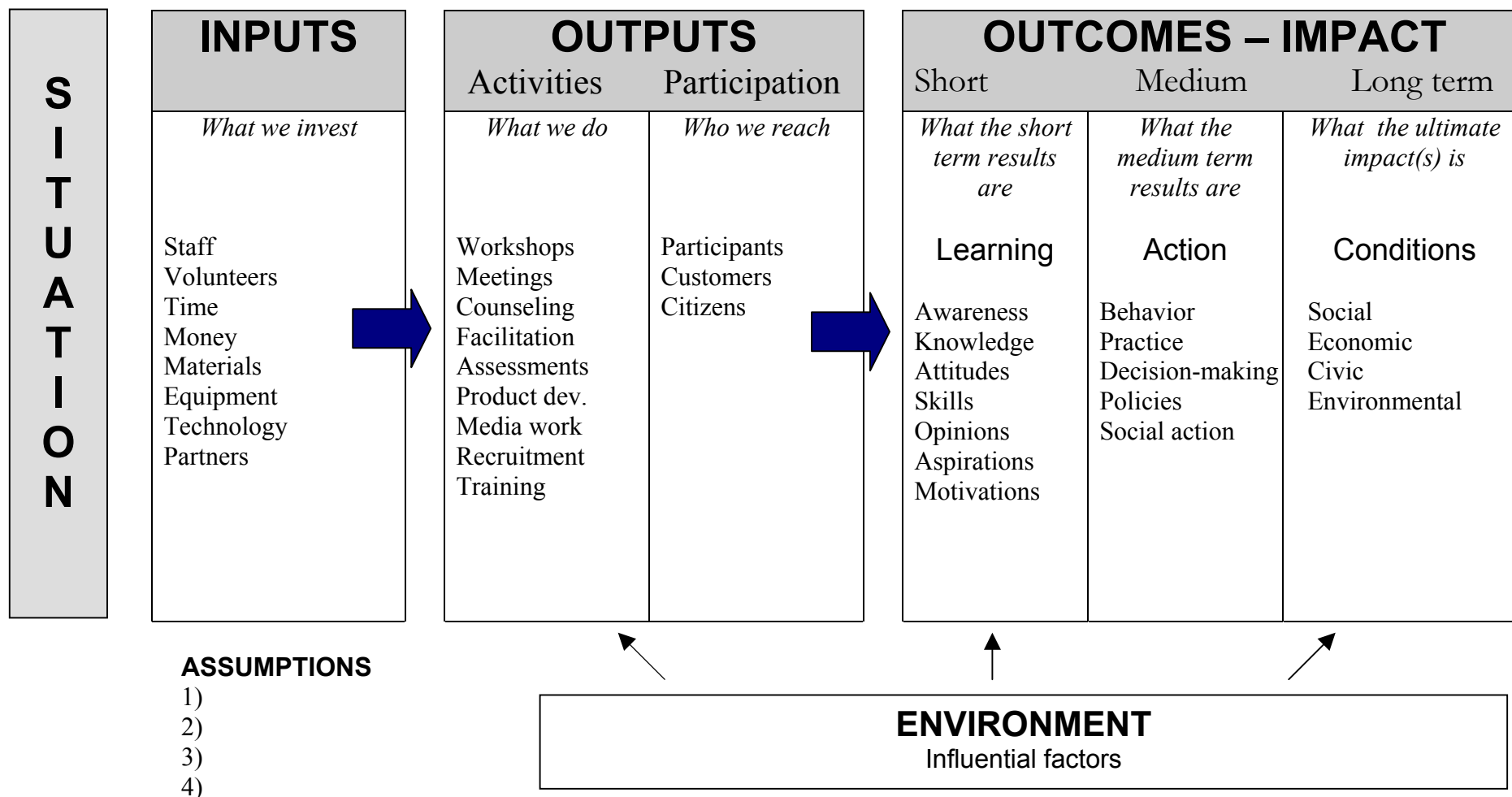
EXPECTED PARTICIPANT OUTCOMES:

Participants will

- 1) know what a logic model is and how to use it in program planning and evaluation
- 2) know the difference between inputs, outputs and outcomes
- 3) know that logic models look different depending upon purpose, program and context
- 4) be able to draw a logic model of one of their own programs
- 5) know that a logic model helps them determine what and when to evaluate

What I hope most for this workshop:

LOGIC MODEL: Program Performance Framework



E. Taylor-Powell, 1998

A New Era

- What gets measured gets done
- If you don't measure results, you can't tell success from failure
- If you can't see success, you can't reward it
- If you can't reward success, you're probably rewarding failure

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- If you can't see success, you can't learn from it
- If you can't recognize failure, you can't correct it
- If you can demonstrate results, you can win public support

Osborne and Gaebler, 1992 in MQ Patton, 1997:14

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Logic Model is...

- Picture of a program
- Graphic representation of the program “theory” or “action” – what it invests, what it does and what results
- Logical chain of if-then relationships; if x occurs, then y will occur
- Core of program planning and evaluation

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- **LOGIC**
Reasonable
To be expected



- **MODEL**
Represents reality, isn't reality

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Why Logic Models-- Why the Hype?

- Shows difference between what we do and impact we are having
- Provides a common vocabulary
- Focus on quality and continuous improvement

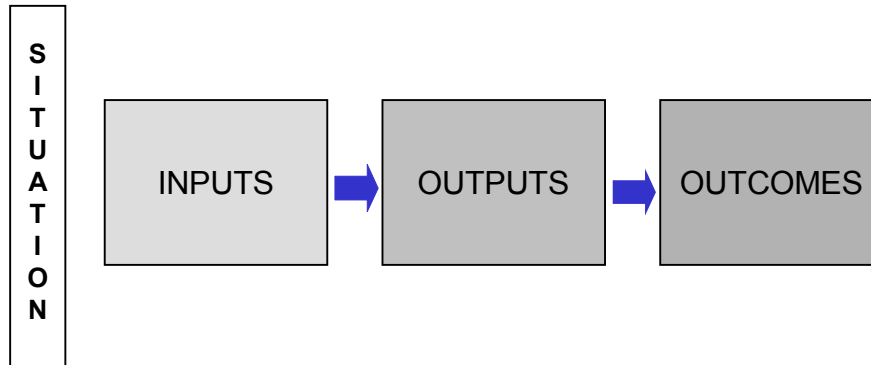
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Logic Model: Origins

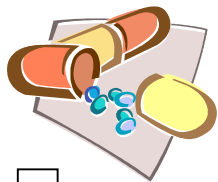
- Private Sector: Total quality management
- Public Sector: GPRA, performance budgeting
- Non-Profit Sector: Outcomes measurement, eg. United Way
- International Arena: Results Framework of USAID, etc.
- Evaluators: Evaluability assessment, bennett hierarchy

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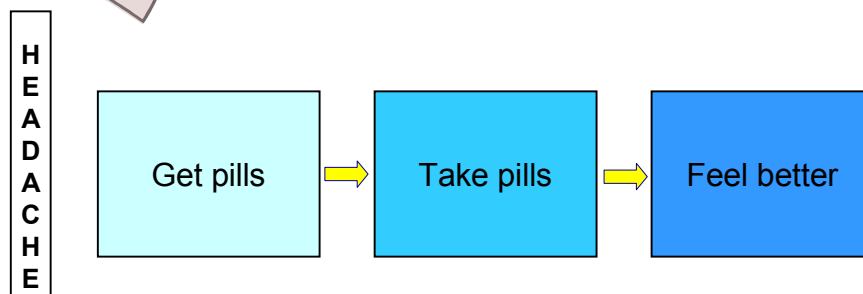
Logic Model



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Everyday Logic Model



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An Extension Example: Business Counseling



Extension invests time and resources



A variety of educational activities are provided to business owners who participate

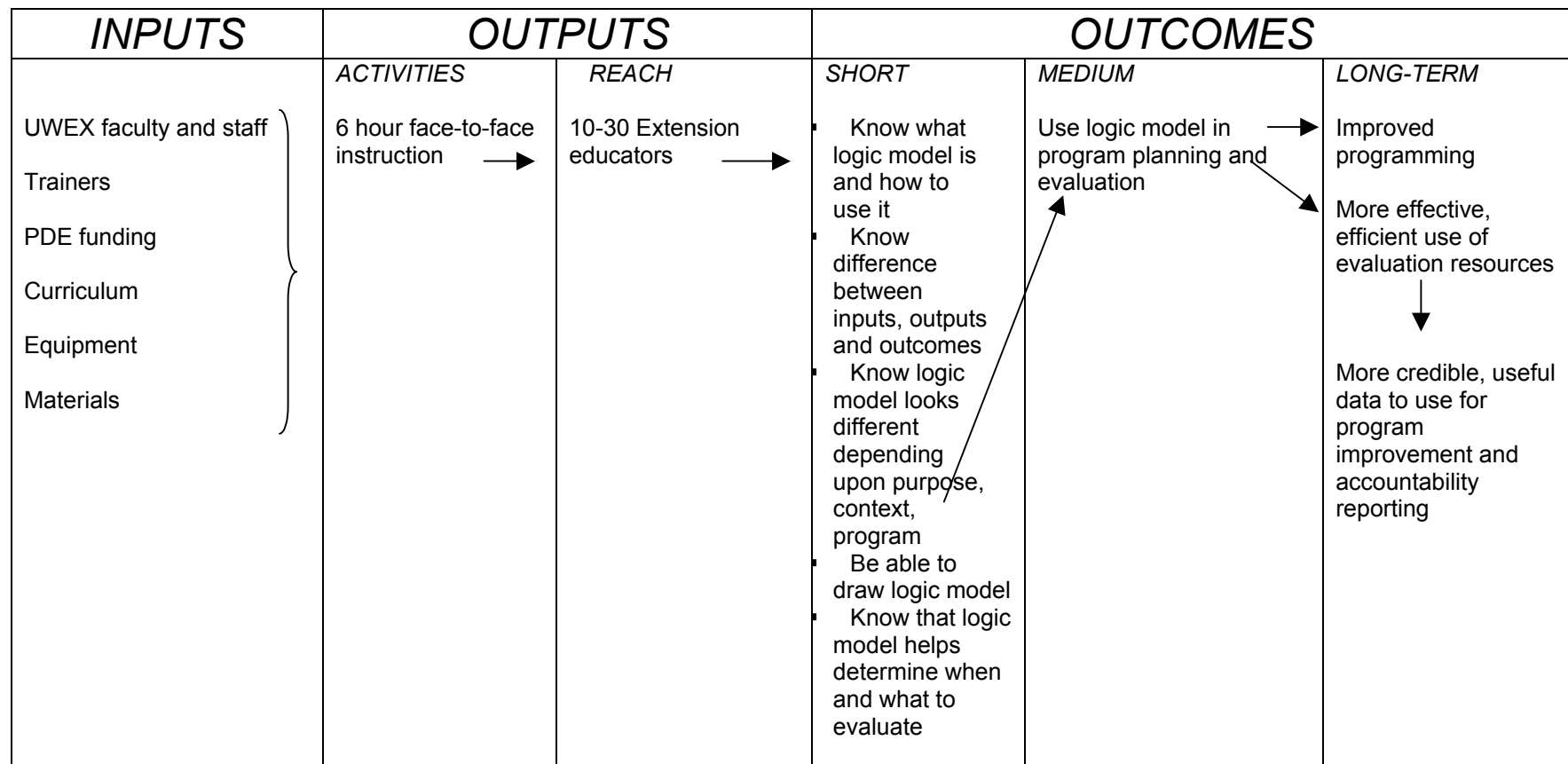
These owners gain knowledge and change practices resulting in



Improved business performance

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Logic Model: 6 hour workshop



Evaluation

Registration

Changes in knowledge
use end-of-session
survey; logic model
worksheets

Review of plans
and reports
Interview with supervisors

What Is a Logic Model?

A logic model is:

- A picture of the program
- Simple representation of the program "theory" or "action" which explains the program and what it is to accomplish
- Shows relationship between what we put in (inputs), what we do (outputs), and what results (outcomes)
- Sequence of "if-then" relationships
- Core of program planning and evaluation

Logic models can be applied to a small program, a process (such as a team working together), or a large organization (usually would have multiple logic models).

Some call this program theory (Weiss, 1998) or the program's *theory of action* (Patton, 1997). It is a "plausible, sensible model of how a program is supposed to work" (Bickman, 1987).

Program Theory

The full chain of events that links the inputs to outputs, outputs to short-term outcomes, short-term outcomes to medium-term outcomes, medium-term outcomes to long-term outcomes or ultimate goals.

- Causal linkages
- An action and reaction
- Hypothesized cause-effect relationship
- Series of if-then relationships

Theories of change

Stages of change

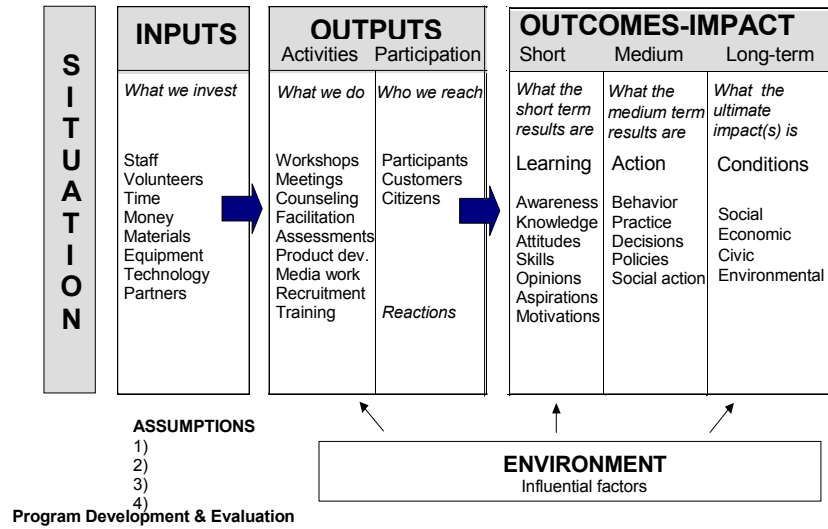
Ecological systems

Diffusion

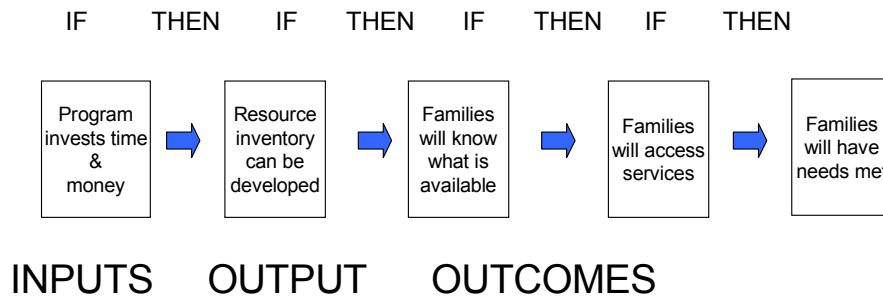
Empowerment

Social marketing

LOGIC MODEL: Program Performance Framework



Logical Linkages: Series of If-Then Relationships



Causal Linkages -

SERIES OF IF-THEN RELATIONSHIPS

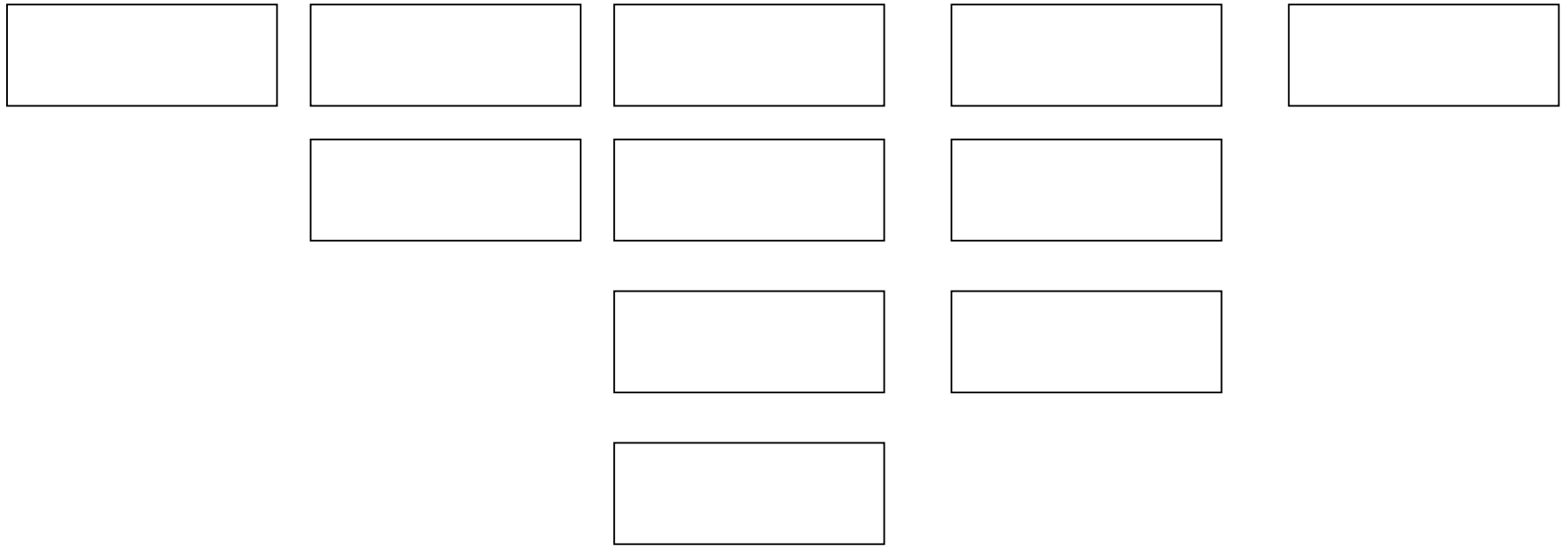
A logic model displays the chain of events that will effect changes and achieve your vision. You might think about this as a series of **if-then** relationships. For example,

- **If** the program invests time and money, **then** a resource inventory can be developed. **If** there is a resource inventory, **then** families will know what resources and services are available. **If** they know, **then** they will be able to access the appropriate services to meet their needs. **If** they access the appropriate services, **then** their needs will be met.
- **If** partnering agencies contribute time and effort, **then** communications among agencies will improve. **If** communications among agencies improve, **then** there will be less overlap and duplication of services. **If** there is less service duplication, **then** freed-up resources can be used to address other needs.

Where we have sound research, the **if-then** relationships are clear and strong. Often, however, we work in situations and with issues and audiences where the research base is not well developed.

Resource: Mayeske, George W. 1999. Life cycle program management and evaluation: An organic and heuristic approach (4th edition). USDA: Cooperative State Research, Education and Extension Service. Washington, D.C.

Completing the Causal Linkages



Program Performance Levels

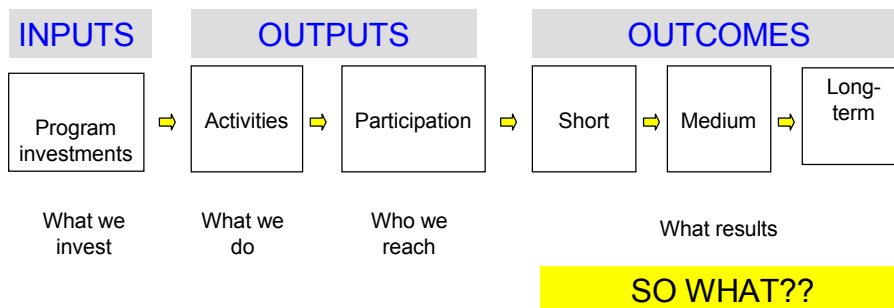
- 1 INPUT
 - 2 OUTPUT
 - 3 OUTCOME
 - A. Short- Learning
 - B. Medium - Action
 - C. Long-term -- Ultimate benefit
 - 0 CANNOT IDENTIFY
-

Place a number code, from above, on each line

- _____ a. Teens learned leadership skills
- _____ b. A new curriculum was developed
- _____ c. Students reported increased confidence in negotiation skills
- _____ d. Training programs included seminars and workshops
- _____ e. Participants from around the state attended
- _____ f. Operators applied their new skills on the job
- _____ g. Extension partnered with DNR to design the program
- _____ h. Volunteers provided over 300 hours of support to the effort
- _____ i. Teen mentors were trained
- _____ j. Owners learned how to develop a woodland management program
- _____ k. Sessions were held in 10 locations
- _____ l. Reported cases of abuse declined
- _____ m. Food safety skills were taught to food vendors and restaurant workers
- _____ n. Books were distributed to children
- _____ o. Producers cut winter feed costs by \$15 per head
- _____ p. Overall herd health increased reducing production costs
- _____ q. Extension helped the community assess the needs of families
- _____ r. Extension specialists educated farmers about effective production methods and business management
- _____ s. Growers saved \$30 per acre using the new weed control spray
- _____ t. Teens established a teen court and hear cases monthly
- _____ u. Extension and veterinarians co-taught the sessions
- _____ v. Newsletters are distributed in three languages
- _____ w. 30 listeners per week tune in to the Extension radio broadcast
- _____ x. Teens learned to counsel other teens on tobacco prevention
- _____ y. Town enacted a policy for youth curfew
- _____ z. New partnerships were built

Adapted from M. Marshall, Texas Agricultural Extension Service, 1994

LOGIC MODEL: Program Performance



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Outcomes vs. Activities

BE OUTCOME DRIVEN,
NOT ACTIVITY DRIVEN



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Situation

- **Situational analysis**
 - Need
 - Asset
- **Problem analysis**
- **Priority setting**
- **Engaging others**



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What Makes Up a Logic Model?

Even though programs are diverse, they all share common elements. Programs are a response to a **situation**. Programs have **INPUTS**, these inputs lead to **OUTPUTS** that lead to **OUTCOMES** and ultimate **IMPACTS**. A logic model is a display of these elements and the underlying **assumptions** set within the program's **environment**.

SITUATION: the conditions that give rise to the program

- **INPUTS:** the resources and contributions that extension and others make to the effort: Time, people, money, materials, equipment, etc.

These inputs are converted into

- **OUTPUTS:** activities and products that reach people who participate

These outputs are intended to achieve certain

- **OUTCOMES:** changes or benefits for individuals, families, groups, communities, organizations, systems. Outcomes often occur along a path from shorter term to longer-term achievements that result in human, economic, civic or environmental **IMPACT**.

Outcomes may be positive, negative or neutral; intended or unintended.

These program elements are laid out in relation to the situation and the need that gave rise to the program. Outcomes are intended to result in a positive change in the originating status. However, situations are not static, so the originating situation that gave rise to the program is likely to change over the course of the program.

ASSUMPTIONS: beliefs we have about the program and the way we think it will work; principles that are guiding the program

ENVIRONMENT: the context and external conditions in which the program exists and which influence the success of the program.

INPUTS	
<p>Faculty Staff Money Time Volunteers Partners Equipment Technology</p>	

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OUTPUTS	
What we do	Who we reach
<p>ACTIVITIES</p> <p>Workshops Counseling On-farm research Facilitation Product development Curriculum design Trainings Field days Conferences Media</p>	<p>PARTICIPATION</p> <p>Participants Clients Customers Users</p>

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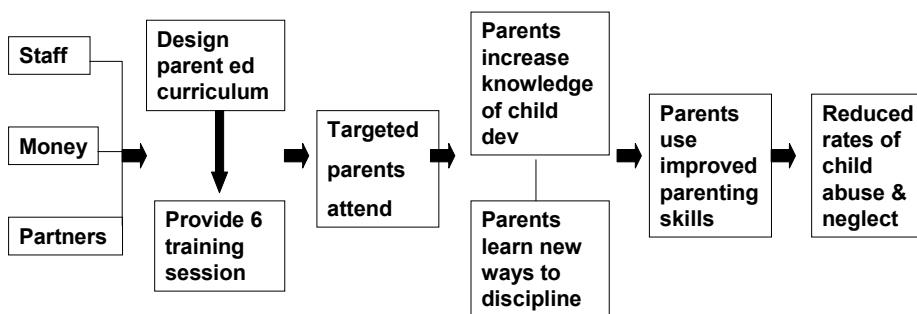
OUTCOMES		
<i>What results for individuals, businesses, communities</i>		
SHORT <i>Learning</i> Awareness Knowledge Attitudes Skills Opinion Aspirations Motivation	MEDIUM <i>Action</i> Behavior Practice Decisions Policies Social action	LONG-TERM <i>Conditions</i> Human Economic Civic Environment

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INPUTS

OUTPUTS

OUTCOMES



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Chain of Outcomes

SHORT	MEDIUM	LONG-TERM
Seniors increase knowledge of food contamination risks	Practice safe cooling of food; food preparation guidelines	Lowered incidence of food borne illness
Participants increase knowledge and skills in financial management	Establish financial goals, use spending plan	Reduced debt and increased savings
Community increases understanding of childcare needs	Residents and employers discuss options and implement a plan	Child care needs are met
Empty inner city parking lot converted to community garden	Youth and adults learn gardening skills, nutrition, food preparation and mgt.	Money saved, nutrition improved, residents enjoy greater sense of community



Focus of Outcomes

- Individual
– Child, parent, client, resident
Child is prepared to enter school; teen uses savings/spending plan
- Group
– family, team, community group
Community group has inclusive membership policy; family increases its savings
- Agency, organization
Communications are more open; agency adopted smoke-free policy
- System
Family serving agencies share resources
- Community
Shared community responsibility has increased; youth are valued as contributing members

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How far out the outcome chain do we go?

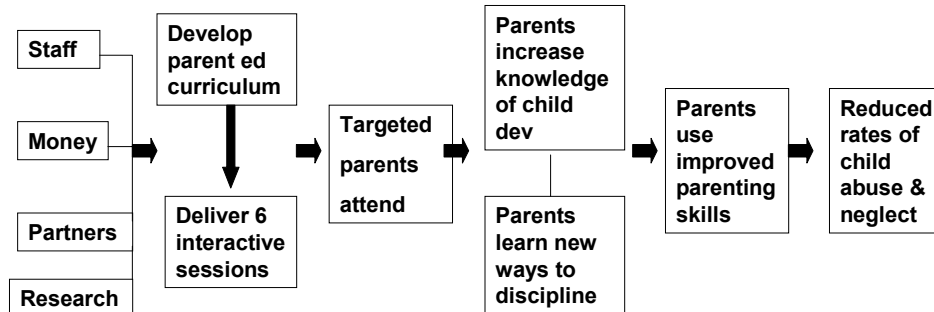
- What is logical?
- What is realistic?
- What is meaningful?

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INPUTS

OUTPUTS

OUTCOMES



WHICH OUTCOMES???

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Outcome of Interest?

- Inherently valued outcome (Mohr, 1995)
 - higher level outcome is immaterial
 - we are willing to assume that a higher outcome will also be attained if we achieve the outcome of interest
- Participant valued outcome: if participants experience a change or benefit that makes a real difference to them (United Way, 1999)

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Assumptions

- Beliefs about the program
 - the participants
 - the way the program will operate
 - how resources, staff will be engaged
 - the theory of action



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Assumptions, cont.

- **Faulty assumptions are often the reason for poor results**
- **Check and test assumptions**
 - **Identify potential barriers for each 'if-then' sequence**

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Assumptions

Underlying the series of **if-then** relationships are a number of **assumptions** about the program, how it will work and what it will achieve. In the example of the resource inventory, there is the assumption that a resource inventory is linked to improvement in client well-being and that the program will have the necessary time, money, and expertise to develop the resource inventory. There is the assumption that once the resource inventory is developed, people will use it, particularly the identified target group. There is the assumption that once accessed, the service will, in fact, meet the client's need. Also, there is the underlying assumption that interagency coordination will make a difference relative to these families' needs. When developing a logic model, think about the underlying assumptions. Are they realistic and sound? What evidence or research do you have to support your assumptions?

Environment–Influential Factors

- **Extension program does not exist in a vacuum**
- **Context of the program**
 - **politics, family circumstances, cultural milieu, demographics, economics, values, biophysical environment, policies, services**
- **What affects the program over which you have little control?**

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What Are Outcomes?

Outcomes are the benefits or results of a program. They are the changes or improvements for individuals, groups, families, organizations and communities that occur during or after the program. Outcomes represent the difference that the program makes. Ask yourself: **"So what? What difference does the program make?"**

For example, in a nutrition education program, the nutrition educators might provide nutritional information and counseling to families in their homes and at meal sites. The outcomes for the participants might include changes in their shopping and eating practices to include fruits and vegetables in their daily diet.

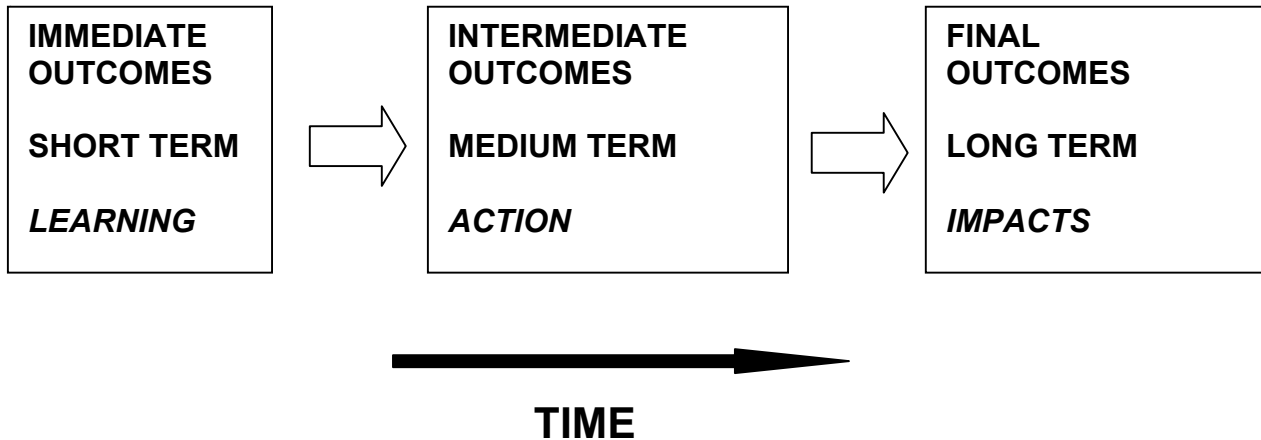
Outcomes answer the question: **SO WHAT?** What difference does the program make for participants, individuals, groups, families, and the community?

Be outcomes driven, not activity-driven.

Activity-driven	Outcome-driven
Examples: <ul style="list-style-type: none">• To train and empower community volunteers• To teach financial management skills to low-income families• To engage 4-H youth in leadership development opportunities• Provide annual conference for forage producers on latest research and technologies	Examples: <ul style="list-style-type: none">• Communities will have increased human capacity to deal with local issues• Low-income families will be better able to manage their resources resulting in less dependence on community resources• Youth participants will learn new leadership and communication skills.• Forage producers in Pasture County will know current research information and use it to make informed decisions.

Chain of Outcomes

Outcomes often fall along a continuum from shorter to longer-term results.



EXAMPLE

Immediate

Families know how to develop a spending plan

Producers increase their knowledge of and ability to analyze regional and global markets

Community residents are more aware of childcare needs in the community

Empty inner city lot converted to community garden

Intermediate

Families use a spending plan

Producers make better informed marketing decisions

Employers and residents discuss options and formulate a joint plan

Youth and adults learn gardening skills, nutrition, food preparation and management

Final

Families increase savings and reduce debts

Producer profits increase

Families have child care needs met

Nutrition is improved, money saved, and residents enjoy a greater sense of community

Focus of Outcomes

We often think of outcomes for individuals or clients but outcomes may occur for different individuals or entities. There may be **outcomes for individuals**, such as teens who develop leadership skills or participants who reduce their alcohol consumption. There may be outcomes for **groups or families**, such as improved communication patterns or management changes. Often, community programs are hoping to achieve **agency or organizational outcomes** such as changes in service delivery or increased access by targeted clientele. In some cases, you may be interested in **system changes** where agencies, departments or whole organizations work in new ways, behave differently, share resources and provide services in an integrated fashion. Sometimes we focus on **outcomes for communities**, including changes in norms, policies or actions at a community-wide level, for example, changes in zoning or land-use policy, attitudes toward youth or approaches to poverty alleviation.

Often positive outcomes occur that we hadn't intended or anticipated. While the logic model lays out the purpose of the program and outcome focus, pay attention to any unintended results.

FOCUS	EXAMPLES
Individual <ul style="list-style-type: none"> • Child • Client • Community resident • Group member 	<ul style="list-style-type: none"> • Children are prepared for school • Farmer able to assess risks • Residents feel safe in their neighborhood • Members of the collaborative know how to conduct a needs assessment
Groups <ul style="list-style-type: none"> • Family • Club • Work Group • Community group 	<ul style="list-style-type: none"> • Families increase their savings • Marketing club increases knowledge of market outlook • Work group practices democratic governance • Community group has an inclusive membership policy
Agency, organization	<ul style="list-style-type: none"> • Communication patterns have changed • Resources have been redirected
Systems <ul style="list-style-type: none"> • Agencies • Departments • Organizations 	<ul style="list-style-type: none"> • Integrated system of services • Interagency resource sharing
Communities	<ul style="list-style-type: none"> ▪ Environment is cleaner ▪ Youth are valued as contributing members

Which Are the Outcomes – Impacts?

Check each phrase that describes an outcome or impact of the program

Nutrition Education Program

- ☐ (1) Older adults increased the amount of calcium-rich foods they eat
- ☐ (2) A series of lessons on healthy eating was taught in collaboration with a drug treatment program
- ☐ (3) Participants serve more than one kind of vegetable to their families every day
- ☐ (4) Participants report health care savings as a result of wiser spending at the grocery store
- ☐ (5) 75 adults have consistently attended all the nutrition workshops

Food Safety Program

- ☐ (1) The ServSafe education program is working with 80% of all food service managers in the state
- ☐ (2) Food poisonings dropped from 677 in 1996 to 225 in 1997
- ☐ (3) Food service workers are more knowledgeable of safe handling practices
- ☐ (4) Food safety skills are taught to state fair food vendors and restaurant workers
- ☐ (5) Food safety information in English and Spanish is available on the University web site

Small Business Development Program

- ☐ (1) The small business development network has grown from 10 to 13 offices in two years
- ☐ (2) Clients generated nearly \$40 million in sales
- ☐ (3) Clients received 12, 138 hours of counseling in 1999
- ☐ (4) 6,349 participants attended 380 seminars and workshops
- ☐ (5) Clients created and retained 681 jobs

Building Youth Citizenship

- ☐ (1) 4-H groups in 45 counties participated in community service projects
- ☐ (2) Teens volunteered an average of 10 hours over the year in community service
- ☐ (3) Teens learn how to identify and solve a community need
- ☐ (4) Teens feel more engaged in and responsible for their community
- ☐ (5) A local industry contributed \$1500 to the 4-H community service project

Quality Assurance

- ☐ (1) Producers decreased their use of medications and made biosecurity improvements to prevent health problems
- ☐ (2) 724 adults and 1026 youth participated in training sessions
- ☐ (3) Producers changed management practices because of what they learned
- ☐ (4) Veterinarians co-taught the sessions
- ☐ (5) Overall herd health has increased reducing production cost

Adapted from United Way, *Outcome Measurement*, 1999

Who Chooses Outcomes?

Program staff will have ideas about the outcomes of their programs. What they are trying to achieve and the difference their program makes for people or groups they reach. Program staff often focus on their own actions -- what they do -- so it is important to ensure that outcomes are stated in terms of what happens for participants; what the value or benefit(s) is for the youth, producers, businesses, clientele.

Participants are also a good source of information about program outcomes. Why do they come? What do they hope will happen? How do they expect to benefit? Asking participants about what they hope to gain is a good way to identify meaningful outcomes.

Other people will also have important insights into program outcomes. For example, you might talk with individuals who have experience with a similar program, observers of the program, or people who know the participants and know what they've gained. Likewise, funders will have expectations and perceptions to offer.

Seek ideas and input from a variety of sources to refine a list of outcomes. The perspectives of others will help provide a broader understanding of the program and its benefits. You might talk with current and past participants, volunteers, other staff members, others who work with or know the participants, funders, peers and informed outsiders. Review the program materials and expected end results.

Which Outcome?

The question often arises:

Which outcome in the chain will be the point where the value of the program will be assessed and judged? What is 'good enough'?

Example - WHICH OUTCOME?

1. Community volunteers will establish and facilitate parent support groups.
2. Parent support groups will be established and function with the leadership of community volunteers.
3. Parents will be better equipped to deal with their children through parent support groups that are facilitated by community volunteers.
4. Parent-child relationships will be improved with the assistance of parent support groups that are facilitated by community volunteers.